



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/775,138	02/01/2001	Holton E. Harris	10546-13	7732

7590

01/20/2004

Thomas D. MacBlain  
GALLAGHER & KENNEDY  
2575 East Camelback Road  
Phoenix, AZ 85016

EXAMINER
----------

DEL SOLE, JOSEPH S

ART UNIT	PAPER NUMBER
----------	--------------

1722

DATE MAILED: 01/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/775,138

Applicant(s)

HARRIS, HOLTON E.

Examiner

Joseph S. Del Sole

Art Unit

1722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 1-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 29-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 29-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Hirschberger (5,204,120).

Hirschberger teaches a coextrusion die, that corresponds to the instant die (the limitations "for an alternate polymer continuous extrusion system that continually alters the content of at least two polymers along the length of an extrusion" is a process limitation that does not further limit the structure of the claimed apparatus), which includes a first melt path 20 leading into the die from a first input opening 36 and adapted for connection in communication with a first gear pump (the Examiner notes that the first gear pump is not positively recited, but rather all that is recited is an opening adapted for communication with a gear pump, and the opening does read on this), a second melt path 24 leading into the die from a second input opening 38 and adapted for connection in communication with a second gear pump (the Examiner notes that the second gear pump is not positively recited, but rather all that is recited is an opening adapted for communication with a gear pump, and the opening does read on this), a convergence of the first and second melt paths 20, 24 in the die. (figs. 2 and 9), a constriction of fixed dimension in each of the first and the second melt paths

proximate and upstream of the convergence (figs. 2 and 9) (the Examiner notes that the statement that the constriction is "drool reducing" does not provide a structural limitation to further limit the constriction), and an output opening 48 for the convergence of an extrudate (the limitation "whereby, upon stopping of either of the gear pumps, drool from the melt path in communication therewith to the convergence is substantially constrained" is a process limitation that does not further limit the structure of the apparatus). A passage 44 downstream of the convergence and leading to the output opening 48, the passage 48 being of sufficient length to permit polymer melt flowing from the convergence to the output to have its cross-sectional shape established. At least one further melt path 28 and at least one further constriction (figs. 2 and 9) in the one further melt path 28

3. Claims 29-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakagawa et al (4,907,957).

Nakagawa et al teach a coextrusion die, that corresponds to the instant die (the limitations "for an alternate polymer continuous extrusion system that continually alters the content of at least two polymers along the length of an extrusion" is a process limitation that does not further limit the structure of the claimed apparatus), which includes a first melt path 27 leading into the die from a first input opening and adapted for connection in communication with a first gear pump (the Examiner notes that the first gear pump is not positively recited, but rather all that is recited is an opening adapted for communication with a gear pump, and the opening does read on this), a second melt path 28 leading into the die from a second input opening and adapted for connection in

Art Unit: 1722

communication with a second gear pump (the Examiner notes that the second gear pump is not positively recited, but rather all that is recited is an opening adapted for communication with a gear pump, and the opening does read on this), a convergence of the first and second melt paths 27, 28 in the die (fig. 7), a constriction of fixed dimension in each of the first and the second melt paths proximate and upstream of the convergence (fig. 7) (the Examiner notes that the statement that the constriction is "drool reducing" does not provide a structural limitation to further limit the constriction), and an output opening for the convergence of an extrudate (fig. 7) (the limitation "whereby, upon stopping of either of the gear pumps, drool from the melt path in communication therewith to the convergence is substantially constrained" is a process limitation that does not further limit the structure of the apparatus). A passage downstream of the convergence and leading to the output opening, the passage being of sufficient length to permit polymer melt flowing from the convergence to the output to have its cross-sectional shape established (fig. 7). Figure 12 shows an alternative that includes a further melt path and at least one further constriction in the one further melt path, i.e., three melt paths each having a constriction.

#### ***Response to Arguments***

4. Applicant's arguments filed 11/03/03 have been fully considered but they are not persuasive.

The Applicant argues neither Hirschberger nor Nakagawa et al teach the prevention of drool in an alternate polymer coextrusion process under the control of two gear pumps.

The Examiner disagrees. First of all, as stated above, gear pumps are not positively recited in the claims. Additionally, the prevention of drool is largely a process limitation without having structural weight. The claims fails to include structural limitations no taught by the prior art. The Applicant should discuss how structural limitations not taught by the prior art prevent drool.

The Applicant argues that neither Hirschberger nor Nakagawa et al teach polymer flow paths constricted for the improvement of drool reduction.

Both Hirschberger and Nakagawa do teach polymer flow paths constricted. The Applicant does not appear to contest this. It is not imperative for the reasons for the constrictions of Hirschberger and Nakagawa to be the same as those taught by the Applicant.

The Applicant argues that Hirschberger does not relate to a continuous extrusion system.

The Examiner disagrees. Hirschberger merely discusses its extruder as being preferably operated intermittently, however the extruder may be operated continuously. Additionally, each intermittent operation is a continuous extrusion of a parison.

The Applicant argues that the constriction Figure 11 of Nakagawa is not "of fixed dimension".

The Examiner disagrees. The embodiment of Nakagawa that anticipates the claimed invention is the embodiment of Figure 7, and this embodiment does teach a constriction of fixed dimension.

Art Unit: 1722

### **Conclusion**

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

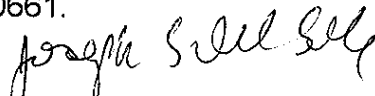
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

### **Correspondence**

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Joseph S. Del Sole whose telephone number is (571) 272-1130. The examiner can normally be reached on Monday through Friday from 8:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Wanda Walker, can be reached at (571) 272-1151. The official fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for both non-after finals and for after finals.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

  
J.S.D.  
January 12, 2004

  
**ROBERT DAVIS**  
**PRIMARY EXAMINER**  
**GROUP 1300 / 700**

1/12/04